CONTENTS TO VOLUME 18

NUMBER 1

	1	Acknowledgement of Reviewers
J. Goc and H. T. Tien	5	Electron and ion transport in SC-SEP cells with semiconductor thin film electrodes
P. Maruthamuthu, K. Gurunathan, E. Subramanian and M. V. C. Sastri	9	Visible light induced hydrogen production with Cu(II)/Bi_2O_3 and Pt/Bi_2O_3/RuO_2 from aqueous methyl viologen solution
F. N. Berseneva, N. I. Timofeev and A. B. Zakharov	15	Alloys of palladium with metals of the platinum group as hydrogen-permeable membrane components at high temperatures of gas separation
V. I. Kabakov and Ye. I. Yantovsky	19	Solar pond magnetohydrodynamic generator for hydrogen production
S. Furuhama, T. Sakurai and M. Shindo	25	Study of evaporation loss of liquid hydrogen storage tank with LH_2 pump
M. R. Gopal and S. S. Murthy	31	Influence of heat and mass transfer effectiveness on metal hydride heat pump performance
A. P. Varghese and R. H. Herring	39	Transient shielded liquid hydrogen containers
Yu. I. Aristov, Yu. Yu. Tanashev, S. I. Prokopiev, L. G. Gordeeva and V. N. Parmon	45	ICAR process (immediate catalytic accumulation of ionizing radiation energy) as a new promising approach to the development of cheminuclear power plants
R. F. Alimova, L. F. Gol'tsova, V. A. Garkusheva, N. I. Chabak and L. B. Maksimal'do	63	English Bibliography on the Hydrogen Energy and Technology (U.S.S.R.) (Editors-in-chief: V. A. Gol'tsov and V. K. Popov)
R. F. Alimova, L. F. Gol'tsova, V. A. Garkusheva, N. I. Chabak and L. B. Maksimal'do	71	Russian Bibliography on the Hydrogen Energy and Technology (U.S.S.R.) (Editors-in-chief: V. A. Gol'tsov and V. K. Popov)
	79	Calendar of Events
Announcements	81	Home Power Magazine
	82	International Conference on Energy, Environment and Electrochemistry, Karaikudi, India, 10–12 February 1993
	83	Workshop on Optoelectronic Materials and their Applications, La Habana, Cuba, 18–25 February 1993
	84	Project Energy '93, Kansas City, Missouri, 20–23 June 1993
	85	The First International Conference on New Energy Systems and Conversions, Pacific Convention Plaza Yokohama, Yokohama, Japan, 27–30 June 1993
	86	ENSEC '93, International Conference on Energy Systems and Ecology, Cracow, Poland, 5–9 July 1993
	87	International Symposium on Heat and Mass Transfer in Energy Systems and Environmental Effects, Cancun, Mexico, 22–25 August 1993
	88	The 10th World Hydrogen Energy Conference, Cocoa Beach, Florida, U.S.A., 20–24 June 1994
	89	International Association for Hydrogen Energy

NUMBER 2

M. M. JAKSIC, B. JOHANSEN and R. TUNOLD	91	Electrochemical behaviour of gold in acidic and alkaline solutions of heavy and regular water
M. M. JAKSIC, B. JOHANSEN and R. TUNOLD	111	Electrochemical behaviour of palladium in acidic and alkaline solutions of heavy and regular water
G. A. KARIM and G. ZHOU	125	A kinetic investigation of the partial oxidation of methane for the production of hydrogen
T. K. NANDI and S. SARANGI	131	Performance and optimization of hydrogen liquefaction cycles
S. M. A. SHIBLI and M. NOEL	141	Platinum–iridium bimetal catalyst-based porous carbon electrodes for H_2–Cl_2 fuel cells
S. FURUHAMA, T. NAKAJIMA and T. HONDA	149	Rankine cycle engines for utilization of LH_2 car fuel as a low-temperature source
G. A. KARIM and V. P. PANLILIO	157	Flame propagation and extinction within mixtures involving hydrogen and diluent inert gases in air
H. R. HINDS	163	News and Views
	167	Calendar of Events
	169	Hydrogen Energy and Energy Related Publications
Announcements	177	Fourth Annual U.S. Hydrogen Meeting, Washington, D.C., 25–26 March 1993
	178	Workshop on Global Warming Issues in Asia, Bangkok, Thailand, 7–9 July 1993
	179	International Symposium on Heat and Mass Transfer in Energy Systems and Environmental Effects, Cancun, Mexico, 22–25 August 1993
	180	The 10th World Hydrogen Energy Conference, Cocoa Beach, Florida, U.S.A., 20–24 June 1994
	181	International Journal of Environmental Issues in Minerals & Energy Industry—Call for Papers
	182	Applied Chaos Theory
	183	An Invitation to Students
	185	An Invitation to Energy Scientists, Engineers and Planners

NUMBER 3

F. BARBIR, H. J. PLASS, JR and T. N. VEZIROĞLU	187	Modeling of hydrogen penetration in the energy market
D. S. SCOTT	197	Hydrogen in the evolving energy system
R. BAUER and C. KÖNIGSTEIN	205	New sensitizing relay compounds for H_2 production
N. Z. MURADOV	211	How to produce hydrogen from fossil fuels without CO_2 emission
M. A. OBOLENSKY, KH. B. CHASHKA, V. I. BELETSKY, A. V. BASTEEV and V. V. SOLOVEY	217	Hydrogen in layer structures
I. WIERZBA, A. B. OLADIPO and G. A. KARIM	223	The limits for flame flashback within streams of lean homogeneous fuel–diluent–air mixtures involving hydrogen
S. FUKADA and N. MITSUISHI	227	Experimental and computational study of hydrogen isotope separation with a vanadium particle bed

T. N. PATRO 231 Combustion study of hydrogen fueled DI diesel engine: simplified heat release analysis

W. SEIFRITZ 243 Partial and total reduction of CO_2 emissions of automobiles using CO_2 traps

D. S. SCOTT, H.-H. ROGNER and M. B. SCOTT 253 Fuel cell locomotives in Canada

265 Calendar of Events

Announcements

267 Fourth Annual U.S. Hydrogen Meeting

268 Project Energy '93, Kansas City, Missouri, 20–23 June 1993

269 The First International Conference on New Energy Systems and Conversions, Pacific Convention Plaza Yokohama, Yokohama, Japan, 27–30 June 1993

270 ENSEC '93, International Conference on Energy Systems and Ecology, Cracow, Poland, 5–9 July 1993

271 International Symposium on Heat and Mass Transfer in Energy Systems and Environmental Effects, Cancun, Mexico, 22–25 August 1993

272 Progress in Electrocatalysis, Theory and Practice, Ferrara, Italy, 12–15 September 1993

273 The 10th World Hydrogen Energy Conference, Cocoa Beach, Florida, U.S.A., 20–24 June 1994

274 TRIBOS '94, Third Argentine and Latin American Tribological Conference and Exhibition, Buenos Aires, Argentina, 8–12 August 1994

275 International Association for Hydrogen Energy

NUMBER 4

S. PUSHPAVANAM, M. PUSHPAVANAM, S. R. NATARAJAN, K. C. NARASIMHAM and S. CHINNASAMY 277 High surface area nickel cathodes from electrocomposites

R. AMIR, S. SHIIZAKI, K. YAMAMOTO, T. KABE and H. KAMEYAMA 283 Design development of iron solid reactants in the UT-3 water decomposition cycle based on ceramic support materials

KYU-SUNG SIM, YOUNG-MOK SON and JONG-WON KIM 287 Some thermochemical cycles composed of copper compounds with three-step reactions

S. PATEL and D. MADAMWAR 291 Photoosmosis through liquid membrane bilayers generated by phycoerythrin coupled with bacteriorhodopsin

A. S. PEDERSEN and B. LARSEN 297 The storage of industrially pure hydrogen in magnesium

A. Y. ESAYED and D. O. NORTHWOOD 301 Hysteresis in $(Nb_{1-x}Fe_x)_{1-y}Cr_y$–H systems: effect of composition, temperature and cycling

E. P. DA SILVA 307 Industrial prototype of a hydrogen compressor based on metallic hydride technology

P. DEIMEL, H. LEONHARD and E. SATTLER 313 Characterization of the influence of high-pressure hydrogen gas on the ductility of the steel 15 MnNi 6 3

P. A. OKKEN 319 Costs of reducing CO_2 emissions by means of hydrogen energy

K. ANDREASSEN, U. H. BUENGER, N. HENRIKSEN, A. ØYVANN and O. ULLMANN 325 Norwegian hydro energy in Germany (NHEG)

L. BARRA and D. COIANTE 337 Hydrogen–photovoltaic stand-alone power stations: a sizing method

K. YVON and J.-L. LORENZONI 345 Hydrogen-powered lawn mower

Book Review

M. V. C. SASTRI 349 *Hydrogen Energy Progress—IX.* Proceedings of the 9th World Hydrogen Energy Conference, Paris, France, 22–25 June 1992. Edited by T. N. Veziroğlu, C. Derive and J. Pottier

351 Calendar of Events

353 Hydrogen Energy and Energy Related Publications

Announcements

361 Hydrogen and Ecology—93, Moscow, Russian Federation, 31 May–4 June 1993

362 Workshop on Global Warming Issues in Asia, Bangkok, Thailand, 7–9 July 1993

363 International Symposium on Heat and Mass Transfer in Energy Systems and Environmental Effects, Cancun, Mexico, 22–25 August 1993

364 The 10th World Hydrogen Energy Conference, Cocoa Beach, Florida, U.S.A., 20–24 June 1994

365 An Invitation to Students

367 An Invitation to Energy Scientists, Engineers and Planners

NUMBER 5

M. LUNDBERG 369 Model calculations on some feasible two-step water splitting processes

K. M. PETROV, L. M. KABA, S. SRINIVASAN and A. J. APPLEBY 377 Water post-treatment without expendables—proton exchange membrane based electrolysis system

P. S. KAURANEN, P. D. LUND and J. P. VANHANEN 383 Control of battery backed photovoltaic hydrogen production

K. S. DHATHATHREYAN, B. L. BRINDA, S. DEVANATHAN and S. PARTHASARATHY 391 Hydrogen desorption studies on hydrogen storage unit ST-90® containing the alloy $MmNi_{4.6}Al_{0.4}$—identification of two hydride phases

K. DUTTA and O. N. SRIVASTAVA 397 Synthesis and hydrogen storage characteristics of the composite alloy La_2Mg_{17}–x wt% $MmNi_{4.5}Al_{0.5}$

W. SEIFRITZ 405 Should we store carbon in charcoal?

I. L. KOLBENEV 409 Hydrogen fuel in automobiles and tractors

H. B. MATHUR, L. M. DAS and T. N. PATRO 421 Hydrogen-fuelled diesel engine: performance improvement through charge dilution techniques

A. SCHMOLZ and W. BOEGNER 433 Laboratory investigations into a new method of reducing nitrogen oxide in the presence of free oxygen

Technical Communication

W. SEIFRITZ 439 On the recycling of carbon dioxide from flue gases for the catalytic synthesis of methanol with exogenic hydrogen

441 Calendar of Events

Announcements

443 Hydrogen & Ecology—93, Moscow, Russian Federation, 31 May–4 June 1993

444 Project Energy '93, Adam's Mark Hotel, Kansas City, Missouri, U.S.A., 20–24 June 1993

445 The First International Conference on New Energy Systems and Conversions, Pacific Convention Plaza Yokohama, Yokohama, Japan, 27–30 June 1993
446 ENSEC '93, International Conference on Energy Systems and Ecology, Cracow, Poland, 5–9 July 1993
447 International Symposium on Heat and Mass Transfer in Energy Systems and Environmental Effects, Cancun, Mexico, 22–25 August 1993
448 Energex '93, The 5th International Energy Conference, Seoul, Korea, 18–22 October 1993
449 The 10th World Hydrogen Energy Conference, Cocoa Beach, Florida, U.S.A., 20–24 June 1994
450 Tribos '94, Third Argentine and Latin American Tribological Conference and Exhibition, Buenos Aires, Argentina, 8–12 August 1994
451 An Invitation to Students
453 International Association for Hydrogen Energy

NUMBER 6

L. Brossard 455 Electrocatalytic behavior of Co/Ni electrodeposits in 40wt% KOH

R. N. Singh, J. P. Pandey and K. L. Anitha 467 Preparation of electrodeposited thin films of nickel–iron alloys on mild steel for alkaline water electrolysis. Part I: studies on oxygen evolution

H. Ohya, S. Sato, A. Ishii, Y. Negishi and K. Matsumoto 475 The separation of gaseous mixtures with composite micropore glass membranes at high temperature

F. A. Lewis, X. Q. Tong and K. Kandasamy 481 Lattice strain gradient influences on steady-state rates of hydrogen permeation through membranes

H. K. Abdel-Aal and I. A. Hussein 485 Parametric study for saline water electrolysis: Part I—hydrogen production

Y. Pan, M. Takeo and J. Dash 491 Formation of superhexagonal chromium hydride by exposure of chromium thin films to high-temperature, high-pressure hydrogen in a ballistic compressor

R. Kh. Ibrasheva, T. A. Solomina, G. I. Leonova, V. P. Mordovin and A. E. Bekturov 505 Role of active surface in processes of hydrogen sorption–desorption by intermetallic compounds

V. Zh. Shemet, A. P. Pomytkin, V. A. Lavrenko and V. Zh. Ratushnaya 511 Decomposition of metal hydrides in low temperatures and in high-temperature oxidation

M. A. El-Osairy, I. A. El-Osery, A. M. Metwally and M. A. Hassan 517 Two-dimensional dynamic analysis of metal hydride hydrogen energy storage conduction bed models

Zhang Yun Shi, Hu Wei Kang, Wang Da, Yuan Hua Tang and Chen You Xiao 525 A novel method of preparing Ti–Ni hydrogen storage films by ion beam sputtering

529 Calendar of Events

Announcements

531 An Invitation to Students
532 International Symposium on Heat and Mass Transfer in Energy Systems and Environmental Effects, Cancun, Mexico, 22–25 August 1993

533 Progress in Electrocatalysis, Theory and Practice, Ferrara, Italy, 12–15 September 1993
534 Energex '93, The 5th International Energy Conference, Seoul, Korea, 18–22 October 1993
535 The 10th World Hydrogen Energy Conference, Cocoa Beach, Florida, U.S.A., 20–24 June 1994
537 An Invitation to Energy Scientists, Engineers and Planners

NUMBER 7

V. Z. Mordkovich, Yu. K. Baichtock and M. H. Sosna — 539 The large-scale production of hydrogen from gas mixtures: a use for ultra-thin palladium alloy membranes
H. K. Abdel-Aal, S. M. Sultan and I. A. Hussein — 545 Parametric study for saline water electrolysis: Part II—chlorine evolution, selectivity and determination
H. K. Abdel-Aal and I. A. Hussein — 553 Parametric study for saline water electrolysis: Part III—precipitate formation and recovery of magnesium salts
A. Lasia — 557 Study of electrode activities towards the hydrogen evolution reaction by a.c. impedance spectroscopy
J. M. Gras and P. Spiteri — 561 Corrosion of stainless steels and nickel-based alloys for alkaline water electrolysis
A. Kr. Singh, A. K. Singh and O. N. Srivastava — 567 Synthesis of $MmNi_{4.5}Al_{0.5}$ by mechanical alloying
H. I. Shaaban, E. A. Karakish, A. M. Shaaban and S. L. Isaack — 571 Thermal hydriding of some Ni-based intermetallic compounds
B. Bogdanović, T. H. Hartwig and B. Spliethoff — 575 The development, testing and optimization of energy storage materials based on the MgH_2–Mg system
A. N. Podgorny, V. V. Solovey and A. V. Basteev — 591 The effect of metal hydride activation and use of energy nonequilibrium hydrogen
D. Laforgia — 601 Reduction of smoke emissions by compression ignition engines in high-altitude urban transportation system
H. R. Hinds — 607 Hydrogen Energy News and Views
611 Calendar of Events
613 Hydrogen Energy and Energy Related Publications

Announcements

621 An Invitation to Students
622 IEF Continuing Education, Calendar 1993
623 Home Power Magazine
624 International Symposium on Heat and Mass Transfer in Energy Systems and Environmental Effects, Cancun, Mexico, 22–25 August 1993
625 Progress in Electrocatalysis, Theory and Practice, Ferrara, Italy, 12–15 September 1993
626 Third Interrepublic Conference on Hydrogen Material Sciences and Chemistry of Metal Hydrides, Katsiveli, Ukraine, 8–15 October 1993
627 Energex '93, The 5th International Energy Conference, Seoul, Korea, 18–22 October 1993
628 First National Clean Energy Symposium, Istanbul, Turkey, 20–22 December 1993

629 The 10th World Hydrogen Energy Conference, Cocoa Beach, Florida, U.S.A., 20–24 June 1994
630 Tribos '94, Third Argentine and Latin American Tribological Conference and Exhibition, Buenos Aires, Argentina, 8–12 August 1994
631 1994 International Symposium on Metal Hydrogen Systems, Mt. Fuji, Fujiyoshida-shi, Japan, 6–11 November 1994
633 International Association for Hydrogen Energy

NUMBER 8

K. HASSMANN and H.-M. KÜHNE 635 Primary energy sources for hydrogen production
C. A. LINKOUS 641 Development of solid polymer electrolytes for water electrolysis at intermediate temperatures
S. FUKADA, N. MITSUISHI and H. MINATO 647 Effects of nitrogen on hydriding of a titanium particle bed
M. Y. SONG and H. R. PARK 653 A study on the reaction of $Mg_{51}Zn_{20}$ with hydrogen
G. K. VEDESHKIN, K. K. BOKOV and V. A. SKIBIN 661 Nonflammability problems of hydrogen air-breathing engines during altitude testing
V. FROLOV, A. PUKHOV, M. TSEITLIN, A. ANDREEV, I. FROLOVA, A. GUR'IANOV, N. LYAKISHEV, YU. TSVETKOV, G. NOZDRENKO, YU. OVCHINNIKOV, G. KORKISHKO, M. GLUKHOV, M. ZHUKOV, N. ZHURAVEL and I. ZASYPKIN 665 Metallurgical application of hydrogen-containing gases produced by the plasma coal gasification process at an environmentally clean thermal power station
G. CACCIOLA, YU. I. ARISTOV, G. RESTUCCIA and V. N. PARMON 673 Influence of hydrogen-permeable membranes upon the efficiency of the high-temperature chemical heat pumps based on cyclohexane dehydrogenation–benzene hydrogenation reactions
J. LESSARD, G. BELOT, Y. COUTURE, S. DESJARDINS and C. ROY 681 The use of hydrogen generated at the electrode surface for electrohydrogenation of organic compounds
L. BARRA and D. COIANTE 685 Energy cost analysis for hydrogen–photovoltaic stand-alone power stations
M. FULLENWIDER 695 Technical Communication: The third layer
H. R. HINDS 697 Hydrogen Energy News and Views
701 Calendar of Events

Announcements

703 An Invitation to Students
704 IEF Continuing Education, Calendar 1993
705 Progress in Electrocatalysis, Theory and Practice, Ferrara, Italy, 12–15 September 1993
706 Third Interrepublic Conference on Hydrogen Material Sciences and Chemistry of Metal Hydrides, Katsiveli, Ukraine, 8–15 October 1993
707 Energex '93, The 5th International Energy Conference, Seoul, Korea, 18–22 October 1993
708 First National Clean Energy Symposium, Istanbul, Turkey, 20–22 December 1993
709 The 10th World Hydrogen Energy Conference, Cocoa Beach, Florida, U.S.A., 20–24 June 1994

711 An Invitation to Energy Scientists, Engineers and Planners

NUMBER 9

A. K. GUPTA, R. Z. PARKER and R. J. HANRAHAN — 713 Solar-assisted production of hydrogen and chlorine from hydrochloric acid using hexachloroiridate (III) and (IV)

H. DUMONT, P. LOS, H. MÉNARD, L. BROSSARD, B. SALVATO and O. VITTORI — 719 Electrocatalytic performance of lanthanum phosphate-bonded porous electrodes for the hydrogen evolution reaction in 30wt% alkaline solution

F. BUTEAU, P. DEMANGE, C. MOREAU, R. GROS-BONNIVARD and J. M. JUD — 727 Development status of an advanced electrolyser

C. KÖNIGSTEIN and R. BAUER — 735 Photoinduced hydrogen production in dilute solutions and organized assemblies

R. NIKOLIĆ, K. ZMBOV and M. VELJKOVIĆ — 743 Studies of hydrogen–deuterium exchange on Mg_2Ni hydride

V. Z. MORDKOVICH, N. N. KOROSTYSHEVSKY, YU. K. BAICHTOCK, N. V. DUDAKOVA, V. P. MORDOVIN and M. H. SOSNA — 747 $LaNi_5$ and $Ce_xLa_{1-x}Ni_5$ changes in the course of thermobaric cycling in hydrogen and nitrogen/hydrogen mixture

T. NIETSCH, A. RICKERT, E. SCHÜTT, and T. DOMSCHKE — 751 Hydrogen–metal isotherms at low hydrogen/metal mass ratio. Measurement and calculation

H. ZHOU, L. WANG, W. ZHOU, J. WU and Q. WANG — 757 Economic assessment of a waste hydrogen utilization project

U. BERNABAI and R. TORELLA — 763 Thermal analysis of hydrogen-charged austenitic and duplex stainless steels

K. PEHR — 773 Safety concept of an engine test rig with liquid hydrogen supply

J. G. HANSEL, G. W. MATTERN and R. N. MILLER — 783 Safety considerations in the design of hydrogen-powered vehicles

H. R. HINDS — 791 Hydrogen Energy News and Views

795 Calendar of Events

Announcements

797 An Invitation to Students

798 International Hydrogen Directory

799 Third Interrepublic Conference on Hydrogen Material Sciences and Chemistry of Metal Hydrides, Katsiveli, Ukraine, 8–15 October 1993

800 Energex '93, the 5th International Energy Conference, Seoul, Korea, 18–22 October 1993

801 First National Clean Energy Symposium, Istanbul, Turkey, 20–22 December 1993

802 The 10th World Hydrogen Energy Conference, Cocoa Beach, Florida, U.S.A., 20–24 June 1994

803 Tribos '94, Third Argentine and Latin American Tribological Conference and Exhibition, Buenos Aires, Argentina, 8–12 August 1994

804 1994 International Symposium on Metal Hydrogen Systems, Mt Fuji, Fujiyoshida-shi, Japan, 6–11 November 1994

805 International Association for Hydrogen Energy

NUMBER 10

L. BROSSARD and M. LESSARD — 807 Preparation of Co–Fe electrodeposits and their performance in relation to oxygen evolution in 40wt% KOH at 70°C

M. M. JAKSIC, B. JOHANSEN and R. TUNOLD 817 Electrochemical behaviour of platinum in alkaline and acidic solutions of heavy and regular water

V. Z. MORDKOVICH, YU. K. BAICHTOCK, N. V. DUDAKOVA, N. N. KOROSTYSHEVSKY and M. H. SOSNA 839 Comparative efficiency of using hydrides in industrial processes of hydrogen recovery and compression

V. V. NEMOSHKALENKO, E. V. CHOPOVSKAYA, L. M. SHELUDCHENKO and V. A. YATSENKO 843 Electronic structure and chemical bonding in Ti–Co–H hydrides

B. ÖZÜM, G. KOVACIK and A. CHAMBERS 847 Coal gasification gas cleanup

R. FRIBERG 853 A photovoltaic solar-hydrogen power plant for rural electrification in India. Part 1: a general survey of technologies applicable within the solar-hydrogen concept

883 Calendar of Events

885 Hydrogen Energy and Energy Related Publications

Announcements

893 An Invitation to Students

894 First National Clean Energy Symposium, Istanbul, Turkey, 20–22 December 1993

895 Third European Federation of Corrosion Workshop on Microbial Corrosion, Hotel Palacio, Estoril, Portugal, 13–16 March 1994

896 The 10th World Hydrogen Energy Conference, Cocoa Beach, Florida, U.S.A., 20–24 June 1994

897 HYPOTHESIS, HYdrogen POwer (THermal & Electrochemical) Systems International Symposium, Cassino-Gaeta, Italy, 26–29 June 1995

899 An Invitation to Energy Scientists, Engineers and Planners

NUMBER 11

S. A. MARKOV, R. LICHTL, K. K. RAO and D. O. HALL 901 A hollow fibre photobioreactor for continuous production of hydrogen by immobilized cyanobacteria under partial vacuum

K. PETROV, KE XIAO, E. R. GONZALEZ, S. SRINIVASAN, A. J. APPLEBY and O. J. MURPHY 907 An advanced proton exchange membrane electrolyzer with an improved three-dimensional reaction zone

B. ÁRNASON, T. I. SIGFÚSSON and V. K. JÓNSSON 915 New concepts in hydrogen production in Iceland

M. M. KHADER, S. A. NASSER, M. M. HANNOUT and M. S. EL-DESSOUKI 921 Photoelectrochemical dissociation of water at copper-doped *p*-GaAs electrodes

L. JALOWIECKI-DUHAMEL, A. SENE, G. WROBEL and J. GRIMBLOT 925 Alkadiene hydrogenation selectivity on MoS_2/γ-Al_2O_3 and Cu–Zn–O hydrogen reservoirs

S. P. CICCONARDI, E. JANNELLI and G. SPAZZAFUMO 933 Hydrogen energy storage: preliminary analysis

A. DANG, G. A. CAPUANO, J. M. CHAPUZET and J. LESSARD 941 The coelectrodeposition of Raney nickel alloy powder on a stainless steel grid

H. J. STERNFELD and M. PAULUS 945 Hydrogen/oxygen steam generators for sterilization processes and chemical engineering

Y. KHRISTENKO and V. TOMILIN 953 Safe operating conditions research for hydrogen systems with gas venting

G. DE BENI 959 Letter to the Editor

961 Calendar of Events

Announcements

963 An Invitation to Students

964 First National Clean Energy Symposium, Istanbul, Turkey, 20–22 December 1993

965 Third European Federation of Corrosion Workshop on Microbial Corrosion, Hotel Palacio, Estoril, Portugal, 13–16 March 1994
966 The 10th World Hydrogen Energy Conference, Cocoa Beach, Florida, U.S.A., 20–24 June 1994
967 Tribos '94, Third Argentine and Latin American Tribological Conference and Exhibition, Buenos Aires, Argentina, 8–12 August 1994
968 1994 International Symposium on Metal Hydrogen Systems, Mt Fuji, Fujiyoshida-shi, Japan, 6–11 November 1994
969 HYPOTHESIS, HYdrogen POwer (THermal & Electrochemical) Systems International Symposium, Cassino-Gaeta, Italy, 26–29 June 1995
971 International Association for Hydrogen Energy

NUMBER 12

W. HUG, H. BUSSMANN and A. BRINNER 973 Intermittent operation and operation modeling of an alkaline electrolyzer
T. SUZUKI, Y. MAYAMA, T. HIRAI and S. HAYASHI 979 Preliminary attempt to enhance the hydrogenation of carbon dioxide to methane on cobalt oxide catalyst by adding CuO–ZnO–Cr_2O_3
J. J. BORODZIŃSKI and A. LASIA 985 Study of hydrogen evolution on selected PTFE-bonded porous electrodes
A. G. GARCÍA-CONDE and F. ROSA 995 Solar hydrogen production: a Spanish experience
Z. A. MATYSINA, O. S. POGORELOVA and S. YU. ZAGINAICHENKO 1001 The solubility and distribution of hydrogen atoms in ordering alloys
I. ALI and M. A. BASIT 1009 Significance of hydrogen content in fuel combustion
L. M. DAS and R. MATHUR 1013 Exhaust gas recirculation for NO_x control in a multicylinder hydrogen-supplemented S.I. engine
1019 Corrigendum
1021 Calendar of Events
Announcements 1023 An Invitation to Students
1024 Third European Federation of Corrosion Workshop on Microbial Corrosion, Hotel Palacio, Estoril, Portugal, 13–16 March 1994
1025 The 10th World Hydrogen Energy Conference, Cocoa Beach, Florida, U.S.A., 20–24 June 1994
1026 HYPOTHESIS, HYdrogen POwer (THermal & Electrochemical) Systems International Symposium, Cassino-Gaeta, Italy, 26–29 June 1995
1027 An Invitation to Energy Scientists, Engineers and Planners
i Index to Vol. 18, 1993